

2003 National Workshop on State Building Energy Codes



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Final Program
June 23 -26, 2003

Notes:

2003 National Workshop on State Building Energy Codes

We wish to acknowledge those who have made this workshop possible and have worked hard to make it a success:

**U.S. Department of Energy
Pacific Northwest National Laboratory
2003 National Workshop Planning Committee**

2003 National Workshop on State Building Energy Codes Planning Committee Members

Chairperson

Teresa Carroll, U.S. Department of Energy

ATLANTA Region

Timothy Eastling, U.S. Department of Energy
Mike Barcik, Southface Energy Institute
Ted Miltiades, Georgia Department of Community Affairs
Billy Hinton, North Carolina Department of Insurance

BOSTON Region

Dan Strout, U.S. Department of Energy
Randall Lloyd, Vermont Department of Public Service
Tom Franks, Vermont Department of Public Service

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John Devine, U.S. Department of Energy
Norman Bair, Wisconsin Department of Administration
Bruce Nelson, Minnesota Department of Commerce

DENVER Region

Doug Seiter, U.S. Department of Energy
Kim Calomino, Home Builders Association of Metropolitan Denver
Felix Lopez, Texas State Energy Conservation Office

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Karine Shamlian, U.S. Department of Energy
Darren Stevenson, U.S. Department of Energy
Jim Hanna, Maryland Codes Administration
Howard Ebenstein, District of Columbia Energy Office

SEATTLE Region

Molly Dwyer, U.S. Department of Energy
Ron Oltman
Alan Seymour, Oregon Office of Energy

Other

David Weitz, Building Codes Assistance Project
Hale Powell, HPowell Energy Associates
Larry Kinney, Southwest Energy Efficiency Project
Alecia Ward, Midwest Energy Efficiency Alliance
Pat Love, Oak Ridge National Laboratory
Greg Andrews, U.S. Department of Energy
Bob Hendron, National Renewable Energy Laboratory
Eric DeVito, Brickfield, Burchette, Ritts & Stone, PC
Brian Henderson, NYSERDA

Pacific Northwest National Laboratory

Terry Shoemaker
Rosemarie Bartlett
Shannan Butler
Ruth Taylor

Abbreviations and Acronyms

AESP	Association of Energy Service Professionals
ASHRAE	American Society of Heating, Refrigerating, and Air-Conditioning Engineers
BECP	Building Energy Codes Program
DCAT	Development Center for Appropriate Technology
DOE	Department of Energy
EEBA	Energy and Environmental Builders Association
EERE	Office of Energy Efficiency and Renewable Energy
ELPC	Environmental Law and Policy Center of the Midwest
EPA	Environmental Protection Agency
ERS	Energy & Resource Solutions
ESL	Energy Systems Laboratory
EWC	Efficient Windows Collaborative
FSEC	Florida Solar Energy Center
HERS	Home Energy Ratings System
HVAC	Heating, ventilating, and air conditioning
IAQ	Indoor air quality
ICC	International Code Council
IECC	International Energy Conservation Code
IRC	International Residential Code
LEED	Leadership in Energy and Environmental Design
MEC	Model Energy Code
MEEA	Midwest Energy Efficiency Alliance
NEEA	Northwest Energy Efficiency Alliance
NEEP	Northeast Energy Efficiency Partnerships
NFRC	National Fenestration Rating Council
OWIP	Office of Weatherization and Intergovernmental Programs
PNNL	Pacific Northwest National Laboratory
SECO	State Energy Conservation Office
SHGC	Solar Heat Gain Coefficient
SWEEP	Southwest Energy Efficiency Project

Alecia Ward, Midwest Energy Efficiency Alliance

Alecia Ward serves as the Executive Director of the Midwest Energy Efficiency Alliance (MEEA) and is responsible for the development and overall management of the organization. Formed in 1999, MEEA is a regional network of organizations collaborating to promote energy efficiency. MEEA's vision is to be a leader in raising and sustaining the level of energy efficiency in the Midwest region by fostering increased market penetration of existing energy-efficient technologies and promoting new technologies, products and best practices, including renewable energy. Ms. Ward came to the Midwest from the Alliance to Save Energy in Washington, DC where she served as the Program Manager for the Efficient Windows Collaborative, a \$1 million market transformation project designed to increase the penetration of efficient windows technologies in residential new construction and retrofit applications. Ms. Ward received her Bachelor's Degree (BA) in political science from Missouri Southern, and a Masters in Public Administration (MPA) from The George Washington University.

Bill Warren, BWES/Advanced Energy

Bill Warren is the project manager of the Crawl Space project, which is funded by U.S. DOE and co-funded and managed by Advanced Energy. In addition to managing day-to-day field test needs, Bill is currently developing best practice documentation, construction details and instructional materials to improve crawl space designs for new and existing construction. When he's not in crawl spaces, Bill provides program management, training, technical writing and consulting services on building performance issues.

David Weitz, Building Codes Assistance Project

David Weitz is Executive Director of the Building Codes Assistance Project. He previously spent five years with the Massachusetts State building code board where he worked closely with the Energy Office, utilities, and industry to support implementation of the state's energy code.

Bahman Yazdani, Energy Systems Laboratory of Texas A&M University

Bahman Yazdani, P.E., C.E.M., is Associate Director of the Energy Systems Laboratory (ESL) at Texas A&M University System. He has over 26 years experience in the energy management and code administration field. As the Code Engineer for the City of Garland, Texas (1976-1980), Bahman designed, implemented, trained, and enforced the first Model Energy Code, based on ASHRAE Standard 90, in the State of Texas. Garland has continuously enforced the Model Energy Code since 1976. Bahman conducted a comprehensive study on the impact of the Model Energy Code on construction costs in residential, commercial and institutional buildings and made numerous presentations to the city council. He coordinated and instructed seminars on Model Energy Code compliance for builders, architects and engineers, building officials and building inspection staff; developed special simplified compliance forms; and reviewed the proposed residential and commercial building architectural and engineering plans to insure compliance with all building codes for permitting purposes. As an Energy Engineer with the Texas Engineering Extension Service at Texas A&M University, he provided on-site training and technical assistance to Texas cities for the adoption, training, and the enforcement of the Model Energy Code for six years (1980-1986). He has hands-on experience as an energy manager having served in that capacity for Dallas County, one of the largest counties in the state and for the Bryan, Texas, Independent School District with over 13,000 students and 1.7 million square feet of school facilities. As president of TEESI, an energy engineering consulting firm, for five years, Bahman helped implement the Texas LoanSTAR program, on which a path for the current Rebuild America-Texas project is modeled. As ESL Program Manager for the Rebuild America project he has been largely responsible for its successful implementation. As the Associate Director for the ESL, Bahman is directly responsible for the implementation of the ESL's legislative responsibilities under the Texas Senate Bill 5 provisions relating to the Texas Building Energy Performance Standards based on IECC 2000 energy codes as well as evaluating and reporting the impact of any amendments made by municipalities.

2003 National Workshop on State Building Energy Codes

Pre-Workshop Sessions: Monday, June 23, 2003

Time	Scheduled Activities
	All Day Registration – Sheraton Atlanta Hotel
8:00 a.m. – 12:00 p.m.	Building Tours Meet outside Convention Lobby for bus.
12:00 p.m. – 1:00 p.m.	LUNCH – On Your Own
1:00 p.m. – 1:30 p.m.	Energy Codes 101 – The Basics
1:30 p.m. – 3:00 p.m.	HVAC 101
3:00 p.m. – 3:45 p.m.	ASHRAE 90.1-2001
3:45 p.m. – 5:00 p.m.	2003 International Energy Conservation Code (IECC) Update
6:30 p.m.	Welcoming Reception — Courtyard

2003 National Workshop on State Building Energy Codes

Day 1: Tuesday, June 24, 2003

Time	Scheduled Activities	
7:00 a.m. – 8:30 a.m.	Registration and Continental Breakfast	
8:30 a.m. – 9:15 a.m.	Welcome and Agenda Overview	Ted Miltiades, Georgia Department of Community Affairs Elizabeth Robertson, Georgia Environmental Facilities Authority Jim Powell Tim Eastling James Vaseff
9:15 a.m. – 9:45 a.m.	Keynote Speaker	John Millhone U.S. Department of Energy Office of Weatherization and Intergovernmental Programs
9:45 a.m. – 10:00 a.m.	Break	
10:00 a.m. – 11:15 a.m.	Whose Code Is It Anyway?	
11:30 a.m. – 1:00 p.m.	Box Lunch – Visit Exhibitors	
1:00 p.m. – 1:30 p.m.	Networking Break	
1:30 p.m. – 3:00 p.m.	1A – Building Science and the Code – Moisture Control	1B – How Can We Work Together? – Part 1
3:00 p.m. – 3:15 p.m.	Break	
3:15 p.m. – 4:45 p.m.	2A – Building Science and the Code – Code Barriers	2B – Beyond Compliance
4:45 p.m. – 5:30 p.m.	Exhibitors – Networking	
	Dinner/Evening On Your Own	

Todd Taylor, Pacific Northwest National Laboratory

Todd Taylor is a Senior Research Engineer at the U.S. Department of Energy’s Pacific Northwest National Laboratory. He has 19 years’ experience developing and analyzing residential energy codes, including HUD’s Manufactured Housing Construction and Safety Standards, ASHRAE’s Standard 90.2, DOE’s various federal and voluntary energy standards, and the Model Energy Code/International Energy Conservation Code. He was a primary developer of DOE’s MEC*check*/RES*check* code compliance software and has managed or contributed to the development of numerous DOE software tools for building energy analysis and/or energy code development. Mr. Taylor also specializes in large-scale simulation analysis, planning and analysis of building energy metering studies, and the computational aspects of analyzing large energy datasets.

Alison Tribble, Program Manager, Alliance to Save Energy

Alison Tribble is a Program Manager at the Alliance to Save Energy in Washington, DC. Founded in 1977, the Alliance to Save Energy is a non-profit organization which promotes energy efficiency worldwide to achieve a healthier economy, a cleaner environment and energy security.

Alison’s commitment to the environment is a result of growing up on a small dairy farm in West Virginia, where resource efficiency was an important part of every-day life. Since her farming days, Alison has moved on to help others understand the importance of using our resources more efficiently.

Alison joined the Alliance to Save Energy after completing her degree in environmental economics and policy at the University of California at Berkeley where she focused her studies on energy and water resource policy.

Currently, Alison’s primary responsibilities at the Alliance are focused on the Efficient Windows Collaborative, a market transformation project that aims to increase the penetration of energy-efficient window technologies in residential new construction and retrofit applications.

James Vaseff, Georgia Power

Mr. Vaseff is in Georgia Power’s Community Development Department where he coordinates efforts in support of the economic development of the Company’s major service territory, metropolitan Atlanta.

Mr. Vaseff was Manager, External Issues for the Georgia Power Company for seven years previous to coming to Community Development. In that capacity he initiated the Company’s External Affairs Issues Identification Committee, which is still active and conducted other activities related to issue identification and management.

Before coming to that position in November of 1989, Mr. Vaseff was in Georgia Power’s Community Development Department. There he worked for seven years with Georgia communities in downtown revitalization and commercial development. Before entering the electric utility industry, Mr. Vaseff was in private architectural practice in Boston, London, and North Carolina; taught at the College of Architecture, University of North Carolina Charlotte; and was with the U. S. Department of the Interior.

Mr. Vaseff is a licensed Architect, a graduate of the Boston Architectural Center, and was a Loeb Fellow in Advanced Environmental Studies at Harvard’s Graduate School of Design. He has written articles on issues identification and management as well as articles related to the field of architecture and reuse of structures; photographed a book on Medieval cities, and made a short film on the design method of Frank Lloyd Wright.

He has been active in many civic and professional organizations. Mr. Vaseff is past Chairman of the Issue Management Council, the international organization of issue managers. He is President of the Georgia Council for International Visitors. He is a member of the Board of the Young Singers of Callanwolde. He is on the Board of the Midtown Atlanta Rotary Club. He is a member of the Alumni Advisory Council for Harvard’s Graduate School of Design, and a member of the Board of the Waldorf School of Atlanta. He also serves on the State Codes Advisory Committee, and the State Planning Advisory Committee, the Next Generation Schools Steering Committee, the Regional Business Coalition Education and Research Work Group (addressing air quality), and is a member of the board of the Harvard Club of Georgia.

He lives in Decatur, Georgia with his wife and two daughters.

Terry Shoemaker, Pacific Northwest National Laboratory
Terry Shoemaker is a Program Administrator in the Energy Division at Pacific Northwest National Laboratory. Over the past twelve years, Terry has worked on a variety of energy- and buildings-related programs. Terry manages the BECP National Workshop that focuses on providing states, industry, code proponents and stakeholder groups with an opportunity to learn about a variety of codes and standards issues. She also works on the Deployment Team assisting in design and distribution of marketing and communication materials providing awareness to DOE’s building energy code efforts. Terry works closely with the U.S. DOE Regional Offices located in six major cities across the country.

Darren Stevenson, U.S. Department of Energy, Philadelphia Regional Office
Darren Stevenson currently serves as the Program Manager for both the Building Energy Codes Program and the State Energy Program at the U.S. Department of Energy, Philadelphia Regional Office, which covers the Mid-Atlantic Region (DE, DC, MD, NJ, PA, VA, WV). The Building Energy Codes Program serves the building industry by providing financial and technical assistance to states to update, implement and enforce their building energy codes thereby advancing and advocating energy-efficient and environmentally sound design and construction of buildings. The State Energy Program is a formula and competitive grant program which assists states in promoting and deploying energy efficiency and renewable energy technologies which cross all of the energy sectors including Buildings, Industrial, Utility, Transportation and Education. Darren has been at DOE since 1987 and was formerly the Program Manager for the Institutional Conservation Program and the Weatherization Program. Darren is a graduate of West Chester University with a degree in Liberal Studies.

Dan Strout, U.S. Department of Energy, Boston Regional Office
Dan Strout is a Building Energy Codes Program Manager at the U.S. Department of Energy’s Boston Regional Office with over ten years experience in demand side management and energy efficiency. In this role, he also provides the Northeast regional states technical support for the ENERGY STAR buildings program and energy-efficient new construction initiatives. Dan’s other energy experiences include financial and engineering feasibility analyses, program design/implementation, and project management of diverse demand-side management projects for multi-class electric and natural gas utility sectors. From a regulatory perspective, Dan has experience in the review and analysis of utility forecast and supply plans, mergers and acquisitions, power supply arrangements, finance projects, and energy-efficiency programs.

Muthusamy V. Swami, Florida Solar Energy Center
Dr. Muthusamy Swami holds a Ph.D. in mechanical engineering and has been with the Florida Solar Energy Center (FSEC) since 1982. He is currently a Project Director and leads the analytical research and software capability development at the Center. Dr. Swami has over 21 years experience in the development of scientific and application software. He possesses significant expertise in the development and verification of detailed numerical simulation tools. He is presently managing the development of a building energy code, rating, analyses and registration application software using state-of-the-art development and database tools for the state of Florida. He possesses in-depth knowledge of mathematical models and numerical algorithms in the areas of heat, mass, specie and momentum transport to develop efficient computer codes and is extremely familiar with the working and use of several state-of-the-art models for analyzing building energy and indoor air quality. His buildings-related research has addressed radon entry, transport and dispersal, radiant energy transfer, pressure coefficient correlations for natural ventilation, and combined thermal and moisture storage, energy code development/update, and compliance and rating software development.

Ruth Taylor, Pacific Northwest National Laboratory
Ruth Taylor is a Senior Research Engineer in the Energy Technology Division at Pacific Northwest National Laboratory. After receiving her degree in Environmental Design from the Architecture Department of Texas A&M University, Ruth Taylor joined the Laboratory in working to evaluate the economic and environmental impacts of building energy standards. Her work included use of complex building energy simulation tools and analysis in support of whole building performance-based energy standards. Ruth then started her own architectural firm and spent ten years in the field of residential architecture. In 1999, Ruth rejoined the Laboratory, where she manages deployment activities for the Building Energy Codes Program.

2003 National Workshop on State Building Energy Codes

Day 2: Wednesday, June 25, 2003

Time	Scheduled Activities	
7:00 a.m. – 8:30 a.m.	Registration and Continental Breakfast	
8:30 a.m. – 10:00 a.m.	Web-Based Energy Codes Training – The Next Step?	
10:00 a.m. – 10:15 a.m.	Break	
10:15 a.m. – 11:45 a.m.	3A – Living Better with Energy-Efficient Windows	3B – How Can We Work Together? – Part 2
11:45 a.m. – 1:00 p.m.	LUNCH – Keynote Speaker	Jay E. Hakes, Director Jimmy Carter Presidential Library and Museum
	Announcement of the 2003 Best of Show Award Winners	Teresa Carroll U.S. Department of Energy
1:00 p.m. – 1:30 p.m.	Networking Break	
1:30 p.m. – 3:00 p.m.	State Lineup (aka Parade of States)	
3:00 p.m. – 3:15 p.m.	Break	
3:15 p.m. – 4:45 p.m.	4A – The Plight of Energy Codes in Home Rule States	4B – Proposals for Code Grants
5:00 p.m.	Dinner and Tour Mary Mac’s and Jimmy Carter Presidential Library and Museum Meet outside Convention Lobby for bus.	

2003 National Workshop on State Building Energy Codes

Day 3: Thursday, June 26, 2003

Time	Scheduled Activities	
7:00 a.m. – 8:30 a.m.	Registration and Continental Breakfast	
8:30 a.m. – 10:00 a.m.	Cracker Barrel	
10:00 a.m. – 10:15 a.m.	Break	
10:15 a.m. – 11:45 a.m.	5A – The Latest and Greatest in Building Mechanical Technologies	5B – REScheck™ Hands-on Software Training
11:45 a.m. – 12:15 p.m.	Closing Plenary and Wrap-Up	Jean Boulin U.S. Department of Energy

Post-Workshop Session

Thursday, June 26, 2003

Time	Scheduled Activities
1:30 p.m. – 4:00 p.m.	U.S. Department of Energy’s Proposed Code Change

Paperless Workshop

In our efforts to conserve resources, the 2003 National Workshop will not make copies of individual presentations available to attendees. Presentations will be available after the Workshop at www.energycodes.gov/news/2003_workshop/presentations.stm or on CD by request.

Jim Ploger, Kansas Corporation Commission

Mr. Ploger has been with the Kansas Energy Office for over 13 years. Under his leadership, Kansas had one of the first Home Energy Ratings System (HERS) programs certified under the national RESNET certification program. The Kansas Energy Office has been a leader in building energy codes and standards. Recently, Kansas became the first state to adopt the 2003 International Energy Conservation Code (IECC), effective July 1, 2003. The new code also includes a HERS compliance component of 80%, the 16th state to include a HERS rating method of compliance. Kansas hosted the first national DOE Codes and Standards Conference held in 1998.

Jeff Ross-Bain, Southface Energy Institute

Jeff Ross-Bain, PE has over 22 years experience as a mechanical engineer, working primarily for consulting engineering firms in the United States, Australia and England. His expertise includes the design and installation of mechanical systems, preparation of construction documents, construction site supervision, field-testing, commissioning, and maintenance management projects for a variety of commercial and industrial buildings. One of his commissioning projects was the Channel Tunnel between England and France, where he was responsible for monitoring the quality and progress of mechanical installation and final testing of the underground mechanical equipment.

At Southface, Jeff targets the commercial sector and is involved in several projects and oversees the U.S. Department of Energy’s Million Solar Roofs initiative and the Energy Smart Schools program. Additionally, Jeff presents various talks and seminars on building energy codes, high performance design, and energy modeling. Jeff is currently assisting several design teams as a LEED™ project administrator where he monitors the progress of the work and updates task list items to keep the work on track. Jeff provides additional services to the commercial building industry such as energy audits, energy modeling, design charrette facilitation, and general technical assistance. Jeff stays current with industry trends and technical developments and utilizes this research to assist in the development of sustainable workplaces and communities.

Doug Schanne, Northeast Energy Efficiency Partnerships

Douglas Schanne, Northeast Energy Efficiency Partnerships’ (NEEP) Building Energy Codes Project Manager, develops and administers NEEP’s regional building codes initiative which: supports states’ residential and commercial energy code training activities; facilitates parallel residential and commercial building codes development activity between states; builds support for adoption of the most up-to-date model codes and standards in Northeast states, as well as promotes and supports industry changes in energy efficiency that will enable future building energy code upgrades. Doug also serves as an instructor for NEEP, developing and delivering building energy code training through NEEP’s Building Operator Training and Certification Program.

Doug has over 15 years of experience in teaching, program planning, training-development as well as regulatory compliance in public and private sectors. He holds a bachelor’s degree in Science from the University of Villanova and multiple certifications and licenses in Building Official Code Enforcement, Fire Marshal/Inspector, Hazardous Material Inspector and Air Sampling. He has extensive experience in environmental, safety and health issues associated with construction, commercial and industrial sites.

Karine A. Shamlan, U.S. Department of Energy, Philadelphia Regional Office

Karine Shamlan manages the Building Energy Codes Program for the U.S. Department of Energy’s Philadelphia Regional Office (PRO). She has nine years experience in managing energy efficiency projects in both the public and private sectors. In addition to her duties for the BECP, Karine is also responsible for the ENERGY STAR Program at the PRO. Prior to her position with DOE, she served as a Professional Staff Member for the U.S. House of Representatives Committee on Energy and Commerce where she gained considerable knowledge of the energy policymaking process. Karine managed several Weatherization projects for the Armenian Relief Society, Inc. which were funded by the U.S. Agency for International Development as part of relief and development efforts in the Republic of Armenia. She has a BA in Government from the College of William and Mary and a MPIA in Public and International Affairs from the University of Pittsburgh.

Darren Meyers, International Code Council, Inc.

Darren Meyers has more than 8 years of experience working on the development and interpretation of residential and commercial building energy codes, representing the ICC as the Secretariat to the 1998 and 2000 editions and liaison to the 2003 edition of the ICC International Energy Conservation Code (IECC). As a former Senior Staff Engineer for BOCA, and now Manager of Contracts & Consulting for ICC A&E Services, Darren is an integral member of the technical service team. His responsibilities cut across a broad range of ICC business; including the review of construction documents for code compliance, verbal and written correspondence, energy curriculum and code development, targeted support for implementing energy policy at regional, state and local levels and the administration of contracts requiring ICC to support the City of Chicago.

John P. Millhone, Office of Weatherization and Intergovernmental Programs (OWIP)

John P. Millhone is the Program Manager Designate of the Office of Weatherization and Intergovernmental Programs (OWIP) in the Office of Energy Efficiency and Renewable Energy (EERE) of the U.S. Department of Energy. OWIP is responsible for EERE's Weatherization Assistance Program, State Energy Program, Community Partnerships, major deployment activities, and international and Native American activities.

Since 1996, he has held positions in the U.S. Climate Change program as Director of the U.S. Initiative on Joint Implementation and Director of the U.S. Country Studies Program. Drawing on the U.S. experiences, the programs showed developing and transition countries how energy efficiency and renewable energy technologies can reduce greenhouse gas emissions. Prior to that, he took a two-year sabbatical from DOE to the Battelle/Pacific Northwest National Laboratory, where he was a Senior Fellow in the Advanced International Studies Unit. He was Deputy Assistant Secretary for Building Technologies, responsible for DOE's building research and regulatory programs from 1979 to 1994. Before joining DOE, he was director of the Minnesota and Iowa state energy offices. His earlier career was in journalism with the Associated Press, Detroit Free Press and Des Moines Register and Tribune. He has a bachelor of journalism degree from the University of Missouri and has done graduate work in law and political science.

Long active in international activities, he was chairman of the End Use Working Party of the International Energy Agency (IEA) from 1979 to 1985. He was chairman of the IEA's Conference on End-Use Technologies and their Commercialization in Berlin in 1981 and editor of the three-volume proceedings of the conference. He helped create the IEA's Center for the Analysis and Demonstration of Demonstrated Energy Technologies (CADDET) and was the first vice-chairman of the CADDET Executive Committee.

He is a frequent speaker and writer on energy efficiency projects. In 1994, he received a Certificate of Appreciation from the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) for his support of the U.S. building standards program. In 1994, the U.S. Energy Association named him the U.S. public servant of the year. He was the Coordinating Lead Author for the Building Sector Chapter of the recent Intergovernmental Panel on Climate Change Special Report on "Technologies, Policies, and Measures for Mitigating Climate Change."

While directing the Iowa and Minnesota energy offices, he served as staff chairman of the Energy Committee of the National Governors Association (NGA) and represented NGA in the development of regulations for implementing the Federal legislation enacted in the years following the 1973 OPIC oil embargo. During that period, he was appointed to the Fuel Oil Marketing Advisory Committee and elected its chairman. The Committee was asked to arbitrate charges that the oil companies violated price controls in effect at that time. While the arbitration was taking place, the oil companies negotiated a settlement with DOE which created the Petroleum Violation Escrow Account that provided funding for state energy offices.

Chuck Murray, Washington State University Energy Program

Mr. Murray is the Energy and Ventilation Code technical specialist for the WSU Energy Program and serves on the Washington State Building Code Council's technical advisory committees for Energy and Ventilation. Recent activities of interest include authoring and advocating for progressive changes to the Washington State Energy Code and Washington State Ventilation and Indoor Air Quality Code. He is also the primary developer for state energy code residential implementation guides and software. Later this summer, Mr. Murray will establish a new University research station to analyze hygrothermal responses of building assemblies in the wet Pacific Northwest.

National Workshop on State Building Energy Codes Sessions

Monday, June 23, 2003

Energy Codes 101 – The Basics
HVAC 101
ASHRAE 90.1-2001

2003 International Energy Conservation Code (IECC) Update

Tuesday, June 24, 2003

Whose Code Is It Anyway?
Building Science and the Code – Moisture Control
How Can We Work Together? – Part 1
Building Science and the Code – Code Barriers
Beyond Compliance

Wednesday, June 25, 2003

Web-Based Energy Codes Training – The Next Step?
Living Better with Energy-Efficient Windows
How Can We Work Together? – Part 2
State Lineup (aka Parade of States)
The Plight of Energy Codes in Home Rule States
Proposals for Code Grants

Thursday, June 26, 2003

Cracker Barrel
The Latest and Greatest in Building Mechanical Technologies
REScheck Hands-on Software Training
U.S. Department of Energy's Proposed Code Change

Pre-Workshop Sessions/Trainings

Monday, June 23, 2003

Registration7:00 AM – 6:00 PM

Building Tours to Four Locations8:00 AM – 12:00 PM

Technology Square

Features the Dupree College of Management building, which is a Leadership in Energy and Environmental Design (LEED) registered project under construction, the first such building at Georgia Tech. It is a five-building complex on the Georgia Tech campus.

Atlantic Station

Currently under construction, is the original concept that started the “Live, Work, Play” movement. Atlantic Station is being built over a former brownfield as a sustainable development that won the approval of EPA so that a new bridge could be built over the interstate highway in a non-attainment area. The bridge will be pedestrian-friendly with room for public transportation to connect with the MARTA station. Providing homes for 10,000 people, employment opportunities for 30,000, with shopping and entertainment for millions more, this 24-hour community will buzz with pedestrian traffic on its wide boulevards and the crowd of people in the sidewalk cafes and expansive parks.

Emory University

Features the Whitehead Biomedical Research Building as the first building in the Southeast to receive LEED certification from the U.S. Green Building Council.

Southface Energy Institute

Has offered education, research and technical assistance programs on sustainable energy and environmental technologies since 1978. The home and office areas of Southface Energy and Environmental Resource Center showcase innovative ideas for saving energy, water and other natural resources, for reducing waste and using recycled materials, and for maintaining a healthy indoor environment.

Tour Leads: Mike Barcik, Southface Energy Institute
Jeff Ross-Bain, Southface Energy Institute

Lunch12:00 PM – 1:00 PM

On Your Own

Energy Codes 101 – The Basics1:00 PM – 1:30 PM

Ever wonder when the first MEC code was adopted or what the relationship is between the MEC/IECC codes and the ASHRAE standards? This session gives a brief overview of the U.S. voluntary sector energy standards and model codes processes for those who are new to codes and standards.

Speaker: Pam Cole, PNNL

Ray Ivy, Masco Environments for Living

Ray Ivy developed an interest in energy-efficient homes in 1993, the year he bought his first home. Ray renovated homes in Birmingham, AL from 1993 until 2001. Ray started High Performance Home Energy Services in Pensacola, FL in 2001, working with local builders and Gulf Power to do ENERGY STAR ratings on new homes and retrofit existing homes. Ray was hired by Masco to develop and manage the Environments for Living program in Atlanta in 2002. Ray currently works with builders to help them build healthy, safe, comfortable, durable and energy-efficient homes, then market the improved product to consumers. Ray became Chairperson of Construction and Board Member of Habitat Dekalb in 2002, designing and building leading-edge affordable housing.

Jeff A. Johnson, New Buildings Institute

Jeffrey A. Johnson is Executive Director for the New Buildings Institute. Mr. Johnson has over 20 years experience in building energy codes, building science research and developing educational products and services for the building design and construction industry. Mr. Johnson was the former Manager of the Building Technology Program and the Building Standards and Guidelines Program at Battelle. Prior to joining Battelle, Mr. Johnson was the project lead for the Nonresidential Standards at the California Energy Commission. He is a graduate of Sonoma State University’s Environmental Studies and Planning Department. His international experience includes assisting codes and standards development in Canada, India and Mexico.

Larry Kinney, Southwest Energy Efficiency Project

Larry Kinney is a Senior Researcher with the Southwest Energy Efficiency Project where he is responsible for the assessment of building energy use, codes and standards, and energy conservation program planning and evaluation. Active in energy conservation-related research for 30 years, he has broad experience in weatherization program operations, energy-efficient refrigeration, lighting and daylighting technologies, air handling and conditioning systems, and controls. He also has experience in energy efficiency program evaluation, from instrumentation design and analysis to policy research. Larry did undergraduate work in Physics and Philosophy at Rhodes College and holds a PhD in Philosophy from Syracuse University. He is the author of over 100 articles and reports to clients and holds a U.S. Patent on an active daylighting system.

Jim Larsen, Cardinal Glass Industries

Jim has the unusual title of “Director, Technology Marketing”. Relying on his 20+ years experience in the research and development of glass products, Jim’s primary responsibility is supporting the recognition of energy-efficient windows through codes at both the state and national level. Jim also provides product support to customers through web site development, new brochures, and on-site training.

Mr. Larsen has a mechanical engineering degree, is a member of ASHRAE, a past chairman of the ASTM insulating glass subcommittee, and is currently on the board of directors for the National Fenestration Rating Council.

Felix A. Lopez, Texas State Energy Conservation Office (SECO)

Felix is a Professional Engineer (P.E.) licensed in Texas and works as the Senior Engineer of SECO. He provides technical support for various energy conservation programs like the LoanSTAR Loan program, the Renewable Energy program, the School and Local Government program, and the Housing Trust Fund program of the Texas Department of Housing and Community Affairs. He is the Program Administrator for the State Agencies program which includes the Codes and Standards and the Texas Design Standard for state-funded buildings. He has 12 years of experience working with energy conservation which include 7 years with the Bonneville Power Administration of the U.S. Department of Energy, and the last 5 years with SECO. Following the passage of Senate Bill 5 of the 77th Texas Legislature, Felix is in charge of the education and outreach workshops on residential and commercial energy codes that SECO is providing statewide.

Billy G. Hinton, Jr., North Carolina Department of Insurance, Engineering Division
Billy G. Hinton, Jr., PE, is a Building Code Consultant for the North Carolina Department of Insurance, Engineering Division. Billy has been employed with the North Carolina Department of Insurance, Engineering Division for approximately 8 years and previously worked as a power plant design engineer for a public utility for approximately 13 years. Billy presently provides interpretation and instruction of the NC State Building Code, Volume II Plumbing, Volume III Mechanical, Volume VI Gas, Volume VII Residential, and Volume X Energy. Billy serves on the engineering staff of the NC Building Code Council and the NC Code Officials Qualification Board and is working on adhoc committees appointed by the Council to study issues addressing moisture and mold in buildings and changes to minimum fixture requirements for plumbing. Billy also serves on the ASHRAE 90.1 and 90.2 Energy Standards Project Committees and on the International Mechanical Code Development Committee.

Ward S. Huffman, U.S. Department of Energy
Ward has been with the U.S. Department of Energy for approximately ten years. He is currently the lead on Bio-energy as a Senior Financial Specialist. In this position, he has been consulting with communities throughout the continental United States on matters of energy efficiency, renewable energy and sustainable development. As a result of this consulting, Ward recognized a need for grant writing education in communities. To help satisfy this need, he established a series of Grant Writing Seminars to teach the communities how to find, apply for, and get grant money.

In 1998, he became special liaison to the Federal Emergency Management Agency to assist them in developing a program of Sustainable Disaster Recovery and Mitigation. He has worked with communities in Ohio, West Virginia, Colorado, Texas, and New Mexico assisting them with sustainable disaster recovery. As part of this program, he has presented papers to the American Planning Association, the National Floodplain Managers National Conference, the International Association of River Basin Managers Conference, and the Monolithic Dome Institute Conference. In 1998 the University of Wisconsin, Green Bay, requested him to teach in the Community Stewardship Academy. During these Academies, he presented Sustainable Community Concepts to a number of groups representing six counties.

Ward is also an instructor for the University of Phoenix. He teaches finance and financial analysis for graduates and undergraduates in business. His academic credentials include an MBA, Finance, University of Colorado, 1996; an MBA, Marketing, University of Colorado, 1996; and a BA, University of Colorado, 1968. He is currently a doctoral candidate at Nova Southeastern University in finance and has an expected completion date of June 2003.

Ward has a very diversified career background. He is a retired Air Force pilot with 124 combat missions, was a commercial airline pilot for Eastern Airlines, an auditor for the Internal Revenue Service and the Department of Energy, a real estate appraiser and series seven securities dealer.

Bruce D. Hunn, ASHRAE
Bruce D. Hunn has been Director of Technology at the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) since 1997. He directs the 15-person Technology Department staff in support of ASHRAE.

From 1983-97 he headed the Building Energy Systems Program at the Center for Energy Studies at the University of Texas at Austin, where he planned, directed, and participated in research programs addressing energy use in buildings. Research was conducted in energy analysis of buildings, advanced cooling systems, fenestration systems, standards development, thermal energy storage, and solar resource assessment.

Hunn holds a B.A. in Engineering from the University of Redlands and B.S., M.S., and PhD degrees in Mechanical Engineering from Stanford University. Dr. Hunn has authored or co-authored more than 105 articles, technical reports, and papers, as well as eight books or chapters in books, on energy use in buildings and solar energy applications.

HVAC 101 **1:30 PM – 3:00 PM**
Have you heard the mechanical requirements in the energy codes and standards but wondered things like “what is an economizer and what does it do?” If so, this session is for you. Come learn the basics about the most common HVAC technologies.

Speaker: Jeff Ross-Bain, Southface Energy Institute

ASHRAE 90.1-2001 **3:00 PM – 3:45 PM**
ASHRAE’s latest commercial building energy standard, ANSI/ASHRAE/IESNA Standard 90.1-2001, was finalized in June 2001 and became available in January 2002. This Standard incorporates 34 addenda into the new Standard. Many of these addenda are significant editorial and clarification improvements and should be considered when updating State codes. Come and hear Jean Boulín, U.S. DOE, Mark Halverson, PNNL, and Bruce Hunn, ASHRAE, discuss the differences between Standard 90.1-1999 and Standard 90.1-2001 and why they should be considered when updating your commercial building energy code.

Session Lead: Jean Boulín, U.S. Department of Energy
Technical Lead: Jean Boulín, U.S. Department of Energy
Speakers: Jean Boulín, U.S. Department of Energy
Mark Halverson, PNNL
Bruce Hunn, ASHRAE

2003 International Energy Conservation Code (IECC) Update **3:45 PM – 5:00 PM**
Darren Meyers, International Code Council, Inc., will provide an administrative summary of what’s new or modified in the 2003 IECC, both residential and commercial. Updated information on meeting schedules and deadlines, the latest on revisions and code change proposals and the process for submitting a code change will also be discussed.

Speaker: Darren Meyers, International Code Council, Inc.

Welcoming Reception **6:30 PM**
This reception in the hotel's beautiful Savannah Style Courtyard is compliments of Cardinal Glass and will include a no-host bar. Come join us.

Reception sponsored by Cardinal Glass Industries Inc.



Registration and Continental Breakfast7:00 AM – 8:30 AM

Workshop Orientation for Newcomers8:00 AM – 8:15 AM
New to the National Workshop on State Building Energy Codes? Come hear a quick 15-minute overview of the Workshop.

Speakers: Terry Shoemaker, PNNL
Rosemarie Bartlett, PNNL

Welcome and Agenda Overview8:30 AM – 8:40 AM
Ted Miltiades, Georgia Department of Community Affairs
Elizabeth Robertson, Georgia Environmental Facilities Authority (Energy Office)

Atlanta Regional Office8:40 AM – 9:00 AM
Tim Eastling, U.S. Department of Energy, Atlanta Regional Office
Jim Powell, U.S. Department of Energy, Atlanta Regional Office

Invitees9:00 AM – 9:15 AM
James Vaseff, Georgia Power

Keynote Speaker9:15 AM – 9:45 AM
John Millhone, Office of Weatherization and Intergovernmental Programs (OWIP)

Break9:45 AM – 10:00 AM

Plenary - Whose Code Is It Anyway?10:00 AM – 11:15 AM
The latest on code adoption, implementation and enforcement, with a twist!

Session Leads: Rosemarie Bartlett / Terry Shoemaker, PNNL
Technical Leads: Rosemarie Bartlett / Terry Shoemaker, PNNL
Speakers: Mark Bailey, U.S. Department of Energy
Tom Fitzpatrick, Energy Systems Laboratory of Texas A&M University
Tom Carty, Chief Building Official, Peachtree City
Ron Conners, President and CEO, Winslow Homes

Lunch – Visit Exhibitors11:30 AM – 1:00 PM

Networking Break1:00 PM – 1:30 PM

Jay E. Hakes, Jimmy Carter Presidential Library
Jay E. Hakes served as Administrator of the Energy Information Administration, the independent data and analytic arm of the U.S. Department of Energy, from 1993 to 2000. During that period, he oversaw the development of EIA's award-winning web site and the publication of major studies ranging from long-term oil reserves to the costs of limiting emissions of greenhouse gases. He has testified before congressional committees on energy issues on over 25 occasions and has briefed major officials throughout the U.S. government and around the world.

Dr. Hakes currently serves as the Director of the Jimmy Carter Presidential Library in Atlanta, Georgia – one of ten presidential libraries in the federal system. The Library contains the records of the Carter presidency, used by scholars studying the period, and a museum open to the public. The Museum frequently hosts traveling exhibits of major national significance. He holds a Ph.D. in political science from Duke University and began his career teaching at the University of New Orleans.

Mark Halverson, Pacific Northwest National Laboratory
Mark Halverson is a Senior Research Engineer in the Energy Division at Pacific Northwest National Laboratory. For the past 15 years, Mark has supported building energy code and energy efficiency programs. Recent activities include development of consensus and Federal standards, energy code training, analysis of energy savings associated with codes and standards, facilitation of energy saving performance contracts, and measurement and verification. He is currently supporting DOE's Building Energy Codes Program and Federal Energy Management Program. He works closely with ASHRAE's SSPC 90.1, is a member of ASHRAE's Code Interaction Subcommittee, and is a member of the FEMP M&V team. Mark has a Master of Science Degree in Chemical Engineering from the University of Washington and a Bachelor of Science Degree in Chemical Engineering from Montana State University. He is a registered Professional Engineer in the state of Washington and a Certified Energy Manager.

Robert W. Hammon, Ph.D., ConSol
Rob Hammon has over 20 years of experience in energy-efficient design and construction. He has pioneered energy efficiency as a market driver for quality construction and market-driven, voluntary energy-efficiency programs. He is responsible for quality-construction protocols for insulation, air sealing, windows, and heating, cooling and ventilation systems. He has also developed builder protocols for use and installation of residential photovoltaic systems.

Rob has had primary responsibility for developing and delivering the nationally recognized Builder Energy Code Training Program provided by the Building Industry Institute. Rob and his company, ConSol, were the technical consultants to CBIA during the last three energy code updates. Most recently, Rob has been training builders and building departments on the changes to Title 24 as a result of AB 970. ConSol has been involved in the building industry at the local, state and national levels since 1981 and continues to assist the building industry in finding cost-effective methods to comply with state energy codes. In 1997 ConSol won the ENERGY STAR Home Ally of the Year award. Southern Nevada Home Builders Association named Rob as their Associate of the Year in 1997.

Under Rob's guidance, ConSol has recently been awarded contracts with the U.S. Department of Energy to work on the Building America and Zero Energy Home programs. For the Building America program, Rob has assembled an extensive team called the Building Industry Research Alliance who will work to help production builders build homes 40% to 70% more efficient than typical new homes. The goal of the Zero Energy Home program is to be building communities by 2010 that generate as much energy as they consume. Rob currently has four builders building communities that are well on their way toward this goal.

Monte Hewett, Monte Hewett Homes, LLC
Monte Hewett began his quest for excellence in 1988 vowing "we will do what we say we will do." Fifteen years later, Monte is still maintaining his commitment and gaining respect — this is evidenced by the company building every home to EarthCraft House specifications and having every one tested for air infiltration and duct leakage prior to occupancy by the new homeowner.

In 1980, Mr. Fairey initiated the building science research program at FSEC. Since then, he has had primary responsibility for 30 major building science research contracts totaling more than \$11 million. He has extensive experimental and analytical expertise in the fields of moisture transport and control, pressure and air flow control, indoor air quality (IAQ), building envelope systems, cooling and dehumidification systems, natural ventilation systems, energy-efficient building design, industrialized housing systems, utility Demand Side Management (DSM), building energy-efficiency rating systems, and computer simulation and modeling. Mr. Fairey conceived and developed the *Florida Building Energy-Efficiency Rating System* and led the development of *EnergyGauge*, a user-friendly, windows-based software tool for code compliance, energy ratings and economic analysis. He also initiated and led the development of a sophisticated building simulation software research tool, *FSEC 3.0*, capable of accurately simulating complex building science phenomena in detail. He has received two U.S. Patents in the field of photocatalytic detoxification.

Mr. Fairey is a member of ASHRAE where he has served as Research Subcommittee Chairman of TC 4.4 on Thermal and Moisture Retarders, and as Chairman of TC 4.9 on Building Envelope Systems and is currently serving on SPC 140, “Standard Method of Test for the Evaluation of Building Energy Analysis Computer Programs.” He has also served as a member of ASTM C-16, where he chaired the Task Group that developed ASTM Standard C-1158 on Radiant Barrier Systems. He is an affiliate member of the National Association of State Energy Officials (NASEO) and served as a member of the National HERS Council Technical Committee and the Technical and Accreditation Committees of NASEO. He currently serves on the Florida Building Commission Energy Technical Advisory Committee and on a number of RESNET committees where he is chairman of the Training Providers Accreditation Committee, Co-chair of the Standards Drafting Committee and Chairman of the Software Accreditation Subcommittee on the rating method. He is a founding member of the Florida Green Building Coalition (FGBC).

Mr. Fairey is author or co-author of four books and more than 80 technical articles, research reports and general information documents. He has been featured on CNN and CBS News and on three Educational TV programs of the Corporation for Public Broadcasting. He received the National Award for Innovation in Research from the U.S. Department of Energy in 1984 and the University of Central Florida's highest award for research in 1987. He has testified before the U.S. Congress and the Florida Legislature, and occasionally serves as an expert witness on matters of building forensics and has been qualified by the Courts as a Building Science Expert.

Tom Fitzpatrick, Energy Systems Laboratory of Texas A&M University

Tom Fitzpatrick is a Registered Architect and has been a leader in the application of system planning principles to real estate and construction issues for over 25 years. Tom is an energy code specialist in the Implementation Team for Senate Bill 5. Tom is a board member of Texas Solar Energy Society and the Texas Building Energy Institute and until recently served as TBEI's Executive Director and managed its successful energy code promotion and education efforts over the past several years. He has provided support on energy code issues to local governments and legislative staff, provided training for designers, builders and building officials and has hosted numerous consensus-building meetings and events to facilitate understanding, development, and effective implementation of building energy codes. Previously, Tom served as the Director of the Office of Facility Planning for the Texas General Services Commission and as Director of Programming for 3D/International, a large design and management firm based in Houston, Texas.

Paul J. Gaynor, Environmental Law and Policy Center of the Midwest

Paul J. Gaynor is a Senior Attorney with the Environmental Law and Policy Center of the Midwest (ELPC), located in Chicago, Illinois. Mr. Gaynor is the Project Manager for ELPC's effort to have the State of Illinois adopt an energy-efficient building code for all new residential and commercial construction. Mr. Gaynor also works on ELPC's Midwest Transportation and Land Use Reform Projects. Prior to joining ELPC, Mr. Gaynor was a partner with the law firm of Schwartz, Cooper, Greenberger & Krauss in Chicago. J.D., Northwestern University School of Law, 1990; B.A., University of Wisconsin, 1985.

Sessions

(choose one)

1:30 PM – 3:00 PM

Session 1A

Building Science and the Code – Moisture Control

As moisture issues in residential construction continue to dominate the thoughts of building industry professionals, it's important for those involved in energy code implementation, enforcement and compliance to understand the code issues related to this hot topic. Are energy codes helping to eliminate the problem or are misinterpretations of code requirements contributing in some way? This session will explore a number of moisture-related issues with a focus on their relationship to current energy code requirements. Discussions on unvented crawl spaces, proper use of vapor retarders, and window and door flashing techniques will be included.

Session Lead: Molly Dwyer, U.S. Department of Energy, Seattle Regional Office
Technical Lead: Billy Hinton, North Carolina Department of Insurance, Engineering Division
Speakers: Billy Hinton, North Carolina Department of Insurance, Engineering Division
Bill Warren, BWES/Advanced Energy
Chuck Murray, Washington State University Energy Program

Presentation Descriptions:

Billy Hinton

Billy Hinton will discuss an overview of the work of the North Carolina Building Code Council Moisture Ad-Hoc Committee with emphasis on vapor retarder issues. The Committee was asked to address mold and moisture problems in buildings with emphasis on single family dwellings.

Bill Warren

Finally there is research to answer the controversial crawl space question: To vent or not to vent? This presentation summarizes ongoing moisture, energy and indoor air quality (IAQ) results from a field study that compares traditional vented crawl spaces to closed crawl spaces. This multi-year study, which is funded by the U.S. DOE and co-funded and managed by Advanced Energy, concludes with construction details for code improved and best practice designs.

Chuck Murray

Crawl Spaces in the Northwest: Vented or Not? The Pacific Northwest has a long history of residential and light commercial construction using ventilated crawl spaces. Despite the good research conducted in other climates, it is still questionable whether unvented crawls with perimeter insulation would be the most cost effective energy-efficient construction method in the Pacific Northwest.

First, we will discuss the problems we don't have and address the questions we need to answer before we advocate for a different type of crawl space construction. We would like to utilize the modeling capabilities developed for the North Carolina project to do the discovery. This will need to be combined with life-cycle cost analysis to assure we are maintaining our energy efficiency goals. Then we can decide.

Session 1B

How Can We Work Together? – Part 1

Too often energy codes are the poor stepchild of state energy programs - if they have any implementation support at all. Regularly considered “automatic” because they are required by regulation, the potential of codes as an innovative strategy is often overlooked. This session will explore the financial and programmatic advantages of code programs and offer ideas on why and how support should be a top priority for utilities and state agencies. It will also look at the kinds of arguments that can be made to convince potential sponsors that code programs should be funded as an integral part of good energy policy. Participants are encouraged to share their own experiences and brainstorm ideas on how to provide code implementation, training, and enforcement with a shortage of resources.

Session Lead: David Weitz, Building Codes Assistance Project
Technical Lead: David Weitz, Building Codes Assistance Project
Speakers: Jeff Johnson, New Buildings Institute
Felix Lopez, Texas State Energy Conservation Office (SECO)

Break3:00 PM – 3:15 PM

Sessions3:15 PM – 4:45 PM

(choose one)

Session 2A

Building Science and the Code – Code Barriers

This session will examine the issues related to good building science and energy code compliance. It will explore the major issues that have led to changes in the model codes and what issues still need to be addressed. Although the purpose of building codes is to safeguard public health, codes often don’t keep pace with research findings and innovation in technology and building science. Many of the leading building energy efficiency programs have developed new construction approaches and techniques that sometimes conflict with these codes.

A number of efforts are emerging to more effectively address these challenges, including two currently underway by U.S. DOE - Building Energy Codes Program and Building America. This session will bring together key players from these efforts to discuss the code-related barriers and emerging strategies for providing needed information, tools, and pathways for facilitating code approval for these options.

Session Lead: Ruth Taylor, PNNL
Technical Lead: Mike DeWein, Building Codes Assistance Project
Speakers: Steve Andrews, E-Star Colorado
David Eisenberg, Development Center for Appropriate Technology (DCAT)

Presentation Descriptions:

Steve Andrews

Steve will share early segments of a concerted effort to identify conflicts around the country between best practice (supported by building science) and the building codes. Some innovations deemed to be in conflict with the code and “good building practice” – conditioned crawl spaces, “right-sized HVAC equipment,” header-less windows on non-load-bearing walls, frost-protected shallow foundations, down-sized ductwork, etc. – are in fact allowed by the code. The first of a series of two-page handouts to help overcome code barriers will be discussed.

David Eisenberg

David Eisenberg, Director of DCAT, will describe the work they have been doing with the Building Science Consortium of Building America to develop prototype information packages to expedite and support the code and market acceptance and use of alternative materials, methods, designs, and systems of construction. The presentation will describe how these information packages will serve both the design, construction and development sectors and the building regulatory sector by providing needed general and technical information, context, and guidance for those submitting plans and specifications and for those reviewing and inspecting these alternatives.

Tim Eastling, U.S. Department of Energy, Atlanta Regional Office

Tim Eastling has worked at the Atlanta Regional Office of the Department of Energy almost since its beginning. Before stepping on the energy codes whirlwind in July 2001, he worked with industrial programs for nearly 7 years. Prior to that, he worked with states, schools, hospitals, and local agencies to retrofit schools, hospitals, and low-income houses to become more energy efficient. He also worked with states in their broader energy efficiency programs. He has visited many buildings and industries in 10 states to observe the work funded by grants he administered. Advocationally, he is involved in music and travels internationally when time and money allow – 48 countries so far. He received a BA in political science from Georgia State University, an MA in international politics from The University of Texas, and a diploma in Energy Management from North Carolina State University and Virginia Polytechnic Institute. He has also taken many courses in energy efficiency and became a Certified Energy Manager.

David Eisenberg, Development Center for Appropriate Technology

David Eisenberg is Director of the Development Center for Appropriate Technology in Tucson, Arizona. His 20+ years of construction experience include troubleshooting construction of the steel and glass cover of Biosphere 2 and building with structural concrete, structural steel, masonry, wood, adobe, rammed earth, and straw bale. He currently leads a broad-based collaborative effort, “Building Sustainability into the Codes,” with the goal of creating a sustainable context for building regulation. He is Vice-Chair of the ASTM E-06.71 Subcommittee on sustainability for buildings, where he leads a task group developing ASTM standards for low-environmental impact building materials. He is a member of the Board of Directors of the U.S. Green Building Council, serves on the Advisory Board of *Environmental Building News*, and is a member of the Tucson/Pima County Joint Building Code Committee.

Gary Epstein, Energy & Resource Solutions

Gary Epstein is the President and founder of Energy & Resource Solutions (ERS). He has interdisciplinary skills in the energy engineering and environmental consulting fields. His current work and areas of expertise include: energy technology characterization, research and assessment; energy code development and consulting; assessment of environmental impacts of energy use and conservation; and development, planning and evaluation of utility and government resource conservation programs.

During recent years, Mr. Epstein has spent considerable time providing consulting services in support of enhanced compliance with new energy codes. His firm has been a leader in developing programs for peer-to-peer, circuit rider energy code technical assistance, having provided nearly 200 support sessions in the past year. He is currently leading ERS.

Mr. Epstein is the chair of the Association of Energy Service Professionals (AESP) Energy Technology Committee. He is also a U.S. Green Building Council LEED Accredited Professional. His work has been published in the *ASHRAE Journal and Transactions*, *Energy Engineering*, ACEEE Summer Studies, and in numerous other conference proceedings and publications. Mr. Epstein holds a Master Degree in mechanical engineering from the University of Massachusetts.

Philip Fairey, Florida Solar Energy Center

Philip Fairey is Interim Director of the Florida Solar Energy Center (FSEC). He graduated from Clemson University in Clemson, South Carolina, with a BA in Architecture in 1969 and a Master’s degree in City and Regional Planning in 1975.

Eric M. DeVito, Brickfield, Burchette, Ritts & Stone

Mr. DeVito is an attorney with Brickfield, Burchette, Ritts & Stone in Washington, DC. He represents the firm’s manufacturing and rural electric cooperative clients in state and federal regulatory proceedings, utility programs, and legislative initiatives, particularly those relating to energy-efficient building products. He has been actively involved in the development of state and national model building and energy codes, has worked with federal agencies and national interest groups on proposed tax credit legislation and various energy efficiency programs, such as the ENERGY STAR program, and has actively participated in the development of utility demand side management, standard offer, market transformation, and other incentive programs. He is also a certified public accountant and has analyzed tax rate structures, tax incentives, and economic development programs relating to the citing of new manufacturing facilities, and has represented industrial clients in obtaining customer-specific power rates.

Mike DeWein, Building Codes Assistance Project

Mike DeWein is the technical director of the Building Codes Assistance Project, a collaborative effort of the Alliance to Save Energy, the Natural Resources Defense Council, and the American Council for an Energy-Efficient Economy. He has been in the energy-efficiency business for most of his life, first as a builder and an alternative energy retailer, later joining the New York State Energy Office to assist with its energy code outreach and implementation programs. Mike was instrumental in the development of the NYSTAR home energy rating program and was project manager for several NYSEO programs, including State Facilities Energy Efficiency, Renewable Energy and Building Commissioning. He serves on many national code and energy efficiency boards and committees, including the HERS Council Technical Committee, the NY State Energy Code Advisory Committee, and the Board of Directors of the Energy and Environmental Building Association (EEBA).

Heather Dillon, Pacific Northwest National Laboratory

Heather is a mechanical engineer in the Energy Technology Division at the Pacific Northwest National Laboratory. Her experiences on the Building Energy Codes Program include involvement in gathering stakeholder feedback on tools, developing on-line permitting tools, assisting code change processes, and developing beyond code materials. Heather is pleased to be working with building energy codes and enjoys meeting energy code users from different regions.

Molly A. Dwyer, U.S. Department of Energy, Seattle Regional Office

Molly Dwyer has been a member of the Seattle Regional Office for seven years. She is the Regional Program Manager for the Building Energy Codes Program. Mrs. Dwyer is also the Administrator for all Special Projects grants in the Seattle Regional Office. Prior to joining the staff in Seattle, she served in the New York Regional Office for 15 years, managing several programs including the Institutional Conservation Program.

John Eash, California Energy Commission

John Eash is a licensed architect and has worked in the energy field since 1985. He currently works as an Energy Specialist for the California Energy Commission. In 1999 he began to develop the Commission’s “Online Training Series.” In 2000, he wrote and began managing a contract to provide online training videos on California’s energy code. Using public and private funding he has produced more than 100 online streaming (and downloadable) videos housed at www.energyvideos.com. These videos, which are 3 to 15 minutes each in length, also contain generic information on constructing energy-efficient buildings located in any climate. The web site also contains text related to the videos that describes the relevant code, benefits of the energy-efficient device or system, answers frequently asked questions, and provides direct links to many Department of Energy and other pertinent web sites and documents. As part of the web-based training project, a live, eight-hour online pilot “Webcast,” that included live audio/video along with real-time Power Point slides mixed with recorded video, was produced on January 15 and is currently available for viewing on the web site. John is also the Energy Efficiency and Demand Analysis Division’s lead for providing training to building departments on the energy code and has personally trained more than 4,000 building department personnel. He has been editor of the Commission’s *Blueprint*, California’s energy code newsletter, helped the City of Irvine develop a special energy program, and has conducted many complaint investigations related to the code.

Session 2B

Beyond Compliance

What is an ENERGY STAR® or “high performance” building? What makes a building “green”? And how do they relate to the IECC or ASHRAE 90.1? Building technologies and design techniques continue to improve, offering more energy-efficient and environmentally-friendly buildings and economically feasible options for builders. As beyond code construction gains momentum across the country, it is important to understand how it relates to existing codes and standards. This session will provide a forum to briefly introduce these voluntary, beyond code efforts and to discuss the opportunities and challenges these efforts present to achieving greater code compliance.

Session Leads: Karine Shamlian, U.S. Department of Energy, Philadelphia Regional Office
Darren Stevenson, U.S. Department of Energy, Philadelphia Regional Office
Speakers: Jeff Johnson, New Buildings Institute
Dennis Creech, Southface Energy Institute

Presentation Descriptions:

Jeff Johnson

The commercial new construction market lacks a comprehensive definition of high performance buildings from an energy perspective. LEED and other programs define high energy performance as % better than code. Released in June 2003, the High Performance Buildings: Performance Criteria will provide building owners, design professionals, contractors and building operators with a self-guided path to high energy performance.

The presentation will focus on how the Performance Criteria define best practice in the design, construction and start-up of new and renovated nonresidential buildings. This includes the best of new technologies and practices currently being promoted by public benefit and other leading-edge programs. It will also discuss ways to assure the proper performance of measures once specified and installed through functional performance verification and acceptance testing. Finally, the presentation will help participants connect energy and indoor environmental benefits with energy efficiency technologies and practices.

Complimentary copies of the High Performance Buildings: Performance Criteria will be available to all session participants.

Dennis Creech

Voluntary, market-driven green building programs can help both the residential and commercial building industries move beyond code compliance to achieving high performance buildings. In just a few years, over 30,000 residential units and over 80 million square feet of commercial space have been constructed under voluntary green building programs. The presentation will address barriers to green building, the relationship between green buildings and energy codes, and incentives for transforming the market.

Exhibitors – Networking

4:45 PM – 5:30 PM

Dinner/Evening on Your Own

Registration and Continental Breakfast7:00 AM – 8:30 AM

Exhibitors – Networking7:45 AM – 8:15 AM

Plenary - Web-Based Energy Codes Training – The Next Step?8:30 AM – 10:00 AM

Interest among states and other code advocates in using training activities to implement energy codes has increased in recent years. Energy code implementers are discovering that training is essential but as demand increases, it is becoming apparent that traditional training sessions, which are resource intensive and costly, are not sufficient to meet the training needs of the country. This session seeks to demonstrate possible mechanisms to implement centralized, web-based training programs that will reach the greatest number of building professionals with limited funds. Several online training programs currently in use throughout the country will be demonstrated, and their possible applications to state and national energy code training programs will be discussed.

Session Lead: Ruth Taylor, PNNL
Technical Lead: Dan Strout, U.S. Department of Energy, Boston Regional Office
Speakers: Gary Epstein, Energy & Resource Solutions (ERS)
John Eash, California Energy Commission

Presentation Descriptions:

Gary Epstein
This presentation will first briefly discuss the general need for training and technical assistance resources to enable the various new buildings market actors to better comply with energy codes or support the compliance efforts of others. In this area, we will briefly discuss some of the training and circuit rider support activities ERS has been involved in over the past years, and articulate the advantages and disadvantages of these efforts. We will then move to a comprehensive discussion of online resources for energy code training and technical assistance, focusing on ERS’ recent development activities in this area – Technical Assistance Online for Energy Codes.

John Eash
Internet training may be the most cost effective and convenient method of training those who enforce energy codes. The California Energy Commission’s *Online Training Series* (Series) currently consists of more than 100 energy code related videos; each up to 15 minutes in length, along with text providing everything from answers to frequently asked questions to online links to relevant resource websites. The Series has been up and running, at www.energyvideos.com, for more than a year and is the most advanced online video training series for building energy codes in the country.

In this Workshop session, John Eash will describe the development of the Series including problems encountered and their solutions, legal issues such as copyright, keys to licensing agreements, and private sponsorship on public sector websites. Mr. Eash will present a virtual tour of the site, showing portions of several videos. In addition, part of the Series included a live online real-time Webcast on January 15, 2003 (the Webcast is currently archived and available for viewing). The Webcast included both live and recorded video training along with simulcast PowerPoint slides and interactive distance learning tools. Information presented will include statistics and experiences learned from the Webcast as well as from the Series itself.

Internet training is not intended to replace individual or group onsite live training sessions, but can be used effectively to augment such training and provide massive amounts of information in a fast, convenient, user-friendly way.

Ten DVD sets (2 double-sided DVDs per set), containing 95 videos (8 hours) from the Series will be given as door prizes at the end of the presentation.

Pam Cole, Pacific Northwest National Laboratory
Pam Cole is a Science & Engineering Associate in the Energy Technology Division. Pam is responsible for providing technical energy code-related assistance through the BECP Hotline. She manages the BECP Deployment Stakeholder Conferences task for the DOE-BECP exhibit booth to attend builder, code official, and other stakeholder conferences to demonstrate, discuss, and distribute RES*check* and COM*check* compliance materials, plus other program technical products and materials. Pam also manages the BECP *Setting the Standard* newsletter task to deliver important energy code-related information to approximately 30,000 builders, engineers, architects, code officials and others.

Ronald B. Conners, Winslow Homes
Ronald B. Conners, PhD is President and CEO of Winslow Homes, a developer/builder firm that focuses on high performance residential communities. Dr. Conners is also President/CEO of Winslow Investments, a financial and strategic management-consulting firm that invests in and provides strategic management services to firms developing mid-level residential communities. Dr. Conners has an extensive teaching, writing and consulting background. He holds an M.A. and PhD in Economics with specializations in Urban Economics, Health Economics and Industrial Organization and has taught graduate level courses in Strategic Management at the Rollins School of Public Health of Emory University and various Applied Economics graduate courses in the Department of Health Policy and Management of the Graduate School of Public Health at Columbia University in New York.

Dennis Creech, Southface Energy Institute
Mr. Creech is a co-founder of the Southface Energy Institute, a private nonprofit organization conducting education and research in energy, sustainable technologies, and applied building sciences. He has served as Executive Director for over 20 years.

He is a nationally recognized leader in the energy and sustainable development fields. He directed the development of EarthCraft House—Sensibly Built for the Environment. EarthCraft is a voluntary, market-based green builder program sponsored by the Greater Atlanta Home Builders Association, Southface, government and private industry.

Mr. Creech has served on the Board of Directors of the Energy Efficient Building Association, Affordable Comfort, and the Greater Atlanta Home Builders Association, and on numerous policy bodies including the Georgia Regional Transportation Authority Neighborhood and Environment Task Force, the Georgia Advisory Panel on Climate Change, and the Georgia Energy Codes Committee. Mr. Creech has been an Adjunct Professor in the Human and Natural Ecology Program at Emory University and was named 1999 Environmental Professional of the Year by the Georgia Environmental Council.

Mr. Creech frequently speaks on energy and environmental topics ranging from “green” building products to creating sustainable communities, and often serves as a media spokesperson. His “House Doctor” column is a regular feature of the *Atlanta Journal Constitution*, and he is a frequent contributor to trade publications ranging from *Environmental Design and Construction* to *Solar Today*.

In 1996, Mr. Creech directed a project to design and construct the Southface Energy and Environmental Resource Center, a state-of-the-art demonstration facility featuring over 100 energy and resource efficient technologies. The Resource Center has been featured worldwide in over 150 media stories and has hosted meetings for groups ranging from the President’s Council on Sustainable Development to local affordable housing advocates.

Before co-founding Southface, Mr. Creech was a research associate with the Georgia Tech Engineering Experiment Station and Deputy Director of Atlanta 2000, a nonprofit regional planning organization. He has also worked as a field ecologist conducting research on nutrient cycling in forest ecosystems. He lives in an environmentally-restored 1950s ranch-style home.

Rosemarie Bartlett, Pacific Northwest National Laboratory

Rosemarie Bartlett is the Training Manager for the Building Energy Codes Program (BECP) for the Pacific Northwest National Laboratory and has over 12 years experience in building energy efficiency. Rosemarie is responsible for training and outreach efforts for the implementation of national energy codes. She has developed curricula and training programs for the International Energy Conservation Code, ANSI/ASHRAE/ IESNA Standard 90.1-1999, and for BECP products. She is responsible for quality assurance testing of the BECP compliance tools and also participates on the development team, providing direction and assistance with the tools’ support materials. She also provides technical support in the planning and coordination of the BECP National Workshop. She has a B.A. in Business Administration from Eastern Washington University. She is a member of the Association of Energy Engineers and is a Certified Energy Manager.

James C. Benney, National Fenestration Rating Council

Jim Benney has been in the window and glass industry for over 20 years. He has served as the Manager of Technical Services for the Window and Door Manufacturers Association and as Technical Director for the Primary Glass Manufacturers Council. He currently is the Director of Education for the National Fenestration Rating Council. Jim has a B.S. Degree in Forest Management from the University of Missouri.

Jean J. Boulín, U.S. Department of Energy

Jean J. Boulín is responsible for commercial building energy codes in the U.S. Department of Energy’s Office of Building Technology Assistance. Jean has managed a number of the Department’s research programs, including walls, roofs, and windows and daylighting. Since 1984 he has been responsible for the Department’s building energy codes and standards activities. Jean earned his master of architecture degree at the State University of New York at Buffalo.

Thomas J. Carty, Peachtree City

Tom Carty is a 30 year Peachtree City resident. He is an electrician by trade and the chief building official for Peachtree City since 1994. Tom is presently a Director for the Building Officials Association of Georgia, Past President of West Georgia’s Inspectors Association and was selected as Building Official of the Year, 2002 for the state of Georgia by the Building Officials Association of Georgia. Tom has served on numerous national and states code committees. He is also a veteran of the U.S. Army, married 40 years to his wife “Trudy” and has three children and four grandchildren. Tom’s favorite quote is “Let me tell you about the grandkids!”

Laura Case, Emory University

Laura Case is a Project Manager with Emory University. She managed the Whitehead Research Building Project, Atlanta’s first LEED Silver Certified Building. Laura has worked four years on the Emory Campus and eleven years with the Georgia Building Authority as a Project Manager.

Laura has a degree in civil engineering from Southern Polytech, and is a LEED Accredited Professional. Laura is a member of the Emory Committee on the Environment and serves on the board of the Local U.S. Green Building Council.

David Cohan, Northwest Energy Efficiency Alliance

David Cohan is the project coordinator for codes and standards for the Northwest Energy Efficiency Alliance. David has worked in the energy efficiency field for twelve years, nine of them as a consultant and the past three as an Alliance staff member. He took over the codes and standards work two years ago without previous experience in the area. His primary duties at the Alliance are in the evaluation group. David holds an MS in Energy Management and Policy from the University of Pennsylvania and a BA in Literature from the University of California, San Diego.

Break

10:00 AM – 10:15 AM

Sessions

(choose one)

10:15 AM – 11:45 AM

Session 3A

Living Better with Energy-Efficient Windows

Energy codes contain a number of criteria for windows. Now, hear everything you always wanted to know about windows but were afraid to ask. Come learn more about NFRC ratings, solar heat gain coefficient (SHGC), Efficient Windows Collaborative and more.

Session Lead: Tim Eastling, U.S. Department of Energy, Atlanta Regional Office

Technical Lead: Rosemarie Bartlett, PNNL

Speakers: Alison Tribble, Alliance to Save Energy

Jim Benney, National Fenestration Rating Council (NFRC)

Eric DeVito, Brickfield, Burchette, Ritts & Stone

Jim Larsen, Cardinal Glass Industries, Inc.

Presentation Descriptions:

Alison Tribble

This session will explore market transformation in the residential windows sector including national efforts through the Efficient Windows Collaborative (EWC) and efforts at the regional level throughout the U.S. It will explore regional issues in the window market such as impact resistant requirements in coastal climates and passive solar design in heating-dominated climates. It will describe labels to look for on residential windows including NFRC and ENERGY STAR (with information on the new criteria for ENERGY STAR Windows). State codes status with respect to windows around the nation will also be addressed.

Jim Benney

The National Fenestration Rating Council is a unique, nonprofit organization that develops consensus standards for determining the energy performance of fenestration products and administers a certification and labeling program for communicating credible information on product performance. This presentation will educate the audience on how NFRC can help state energy offices in determining compliance and provide an update on recent changes to the program.

Eric DeVito

The national model energy code’s fenestration performance requirements (new and existing homes and commercial buildings), the history behind them, and how to meet them will be discussed. Specific examples of States adopting 2000 IECC and how they have done it (with specific references to enforcing the window requirements) will be presented, including: Georgia, New York, Texas, and Kansas (mandatory disclosure requirement). The presentation will also include issues facing states that have not yet adopted the IECC (focusing on windows): Arizona, Michigan, and Illinois.

Jim Larsen

The presentation will review how the model code has changed over 20 years in regards to window performance. Starting with the 1986 Model Energy Code (MEC), window insulation properties were simply averaged into the walls. The 1995 MEC is a milestone from the window perspective - NFRC U-factor ratings are required. The release of the IECC brings two major changes: tabulations of prescriptive component requirements for the first time “separates” windows from the wall, and the requirement of solar heat gain limits in the south recognizes the importance of windows in air-conditioning dominated climates. Also included is a review of the window and glass technologies that are used to meet the various code levels and an outline of how building heating and cooling energy consumption has changed with these products. Finally, the presentation will discuss the near-term future of glass and window developments and the impacts these may have on building performance.

Session 3B

How Can We Work Together? – Part 2

Explore potential partnerships, strategic planning, program design, education, technical information resources, training, workshops, and financial incentives that will assist you in your efforts to update and implement energy codes and otherwise promote energy efficiency in buildings.

- Session Leads: Terry Shoemaker / Rosemarie Bartlett, PNNL
- Technical Leads: Terry Shoemaker / Rosemarie Bartlett, PNNL
- Speakers: David Cohan, Northwest Energy Efficiency Alliance
- Alecia Ward, Midwest Energy Efficiency Alliance
- Larry Kinney, Southwest Energy Efficiency Project
- Doug Schanne, Northeast Energy Efficiency Partnerships

Lunch11:45 AM – 1:00 PM

Keynote Speaker

Jay E. Hakes Director, Jimmy Carter Presidential Library and Museum
Teresa Carroll, U.S. DOE Announcement of the 2003 Best of Show Award Winners

Networking Break1:00 PM – 1:30 PM

State Lineup (aka Parade of States)1:30 PM – 3:00 PM

Fun, fast-paced, yet informative session where State delegates make a 2-minute pitch on their States’ greatest code-related activities. Props, costumes, and visuals are welcome!

- Session Leads: Terry Shoemaker / Rosemarie Bartlett, PNNL
- Technical Leads: Terry Shoemaker / Rosemarie Bartlett, PNNL

Break3:00 PM – 3:15 PM

Sessions3:15 PM – 4:45 PM

(choose one)

Session 4A

The Plight of Energy Codes in Home Rule States

This session will include discussion of code adoption, implementation, and enforcement efforts in several home rule states. Participants will explain various approaches taken, stumbling blocks encountered, and suggestions on how to be successful.

- Session Lead: Heather Dillon, PNNL
- Technical Leads: John Devine, U.S. Department of Energy, Chicago Regional Office
- Terry Shoemaker / Rosemarie Bartlett, PNNL
- Speakers: Bahman Yazdani, Energy Systems Laboratory of Texas A&M University
- Jim Ploger, Kansas Corporation Commission
- Larry Kinney, Southwest Energy Efficiency Project
- Paul Gaynor, Environmental Law and Policy Center of the Midwest (ELPC)

2003 National Workshop on
State Building Energy Codes

Speaker Bios
(alphabetical by last name)

- Greg Andrews
Steve Andrews
Rosemarie Bartlett
James C. Benney
Jean J. Boulin
Thomas J. Carty
Laura Case
David Cohan
Pam Cole
Ronald B. Connors
Dennis Creech
Eric M. DeVito
Mike DeWein
Heather Dillon
Molly A. Dwyer
John Eash
Tim Eastling
David Eisenberg
Gary Epstein
Philip Fairey
Tom Fitzpatrick
Paul J. Gaynor
Jay E. Hakes
Mark Halverson
Robert W. Hammon
Monte Hewett
Billy G. Hinton, Jr.
- Ward S. Huffman
Bruce D. Hunn
Ray Ivy
Jeff A. Johnson
Larry Kinney
Jim Larsen
Felix A. Lopez
Darren Meyers
John P. Millhone
Chuck Murray
Jim Ploger
Jeff Ross-Bain
Doug Schanne
Karine A. Shamlan
Terry Shoemaker
Darren Stevenson
Dan Strout
Muthusamy V. Swami
Ruth Taylor
Todd Taylor
Alison Tribble
James Vaseff
Alecia Ward
Bill Warren
David Weitz
Bahman Yazdani

Greg Andrews, U.S. Department of Energy, Atlanta Regional Office
Greg Andrews is a Project Manager at the U.S. Department of Energy, Atlanta Regional Office. Since joining DOE in 1999, he has served as Regional Team Lead for the Rebuild America Program. He is a graduate of Morehouse College, Atlanta, Georgia and Indiana University School of Law, Bloomington, Indiana. For the past 20 years, he has served on a number of organizations in the area of energy and environmental policy, including the Consumers’ Utility of Georgia and the Georgia Department of Natural Resources.

Steve Andrews, E-Star Colorado
Steve Andrews works part-time as Senior Technical Officer for E-Star Colorado. He also works independently as a free-lance writer and energy consultant—something he’s done for the last 23 years. He’s had some 200+ articles appear in trade publications such as *Builder*, *Journal of Light Construction*, *Energy Design Update* and more. He also speaks frequently on the broader energy resource issues involving natural gas and petroleum liquids.

Post-Workshop

Thursday, June 26, 2003

U.S. Department of Energy's Proposed Code Change 1:30 PM – 4:00 PM

DOE is proposing a change to the ICC's International Energy Conservation Code (IECC) and International Residential Code (IRC). Come listen to Ron Majette, U.S. Department of Energy, and find out why DOE is proposing the changes, what changes are proposed today, and what will happen next.

- Session Lead: Ron Majette, U.S. Department of Energy
- Technical Lead: Ron Majette, U.S. Department of Energy
- Facilitator: David Weitz, Building Codes Assistance Project
- Residential Speakers: Philip Fairey, Florida Solar Energy Center
- Todd Taylor, PNNL
- Commercial Speaker: Mark Halverson, PNNL

Presentation Descriptions:

Bahman Yazdani
The federal Clean Air Act authorizes the U.S. Environmental Protection Agency (EPA) to establish the maximum allowable concentrations of pollutants that have been shown to endanger human health, harm the environment, and cause property damage. The Texas Emissions Reduction Plan (TERP), as established by Senate Bill 5 of the 77th legislature in 2001, created incentive programs as well as certain requirements to assist in reaching attainment by 2007. Included in these requirements is the adoption of an energy code based on ASHRAE 90.1-1999 (IECC 2000 with the 2001 supplement). The recently passed House Bill 1365 makes statutory adjustment to allow for a more efficient TERP and makes necessary changes to help ensure attainment is reached.

Jim Ploger
Under the leadership of the Kansas Corporation Commission Energy Program (state energy office), Kansas has been able to encourage the use of building energy codes beginning in 1997 when builders could certify they meet the 1993 MEC for residential buildings as one means of compliance of a “Kansas Energy Efficiency Disclosure” form that is required for new construction. During the recent 2003 Kansas Legislative session, this law was updated to reference the 2003 version of the IECC, effective July 1, 2003. Basically a home rule state, Kansas has found a way to implement a “voluntary” system of encouraging builders to meet minimum energy codes through this mechanism of requiring thermal standard disclosures on new construction.

Larry Kinney
Larry Kinney will provide updates on the code adoption and implementation processes in the six states in which SWEEP operates: Arizona, Colorado, Nevada, New Mexico, Utah, and Wyoming. These include some of the fastest growing areas in the Nation (Phoenix and Las Vegas) where the interplay between recent code and beyond-code activities provides some interesting harbingers of patterns of development of energy-efficient buildings.

Paul Gaynor
Update on efforts in Illinois to pass an energy-efficient building code for all new residential and commercial construction and some of the home rule issues relating to that effort.

Session 4B *Proposals for Code Grants*

This session will provide a brief overview designed to help both inexperienced and experienced proposal writers better understand the writing process in light of how proposals are evaluated. Items to be covered in the overview include redefining the primary objective of writing proposals, as well as identifying several areas of weakness found in most proposals and how to overcome them.

- Session Leads: Terry Shoemaker / Rosemarie Bartlett, PNNL
- Technical Leads: Terry Shoemaker / Rosemarie Bartlett, PNNL
- Speaker: Ward Huffman, U.S. Department of Energy, Denver Regional Office

Evening Event 5:00 PM

Our first stop will be the historic **Mary Mac's Tea Room** to enjoy a family-style southern dinner. Opened in 1945, John Ferrell carries on the tradition of serving guests a genuine taste of the South just as the founder, Mary MacKenzie, did. Following dinner we will journey to **The Jimmy Carter Presidential Library and Museum**.

Continental Breakfast7:00 AM – 8:30 AM

Cracker Barrel8:30 AM – 10:00 AM

Pick your top three favorite topics from those described below and spend 30 minutes exploring each of them.

Session Lead: Rosemarie Bartlett, PNNL
Technical Lead: Rosemarie Bartlett, PNNL
Speakers: Pam Cole, PNNL
Ray Ivy, Masco Environments for Living
Monte Hewett, EarthCraft House
Rob Hammon, ConSol
Muthusamy Swami, Florida Solar Energy Center
Heather Dillon, PNNL
Ruth Taylor, PNNL

Presentation Descriptions:
Pam Cole – REScheck on the Web (BECF)
REScheck has a new family member...REScheck-Web. Come see a demonstration of the Building Energy Codes Program's new compliance tool. REScheck-Web requires no download or software installation onto your desktop and performs the same UA calculation as the REScheck desktop software version.

Ray Ivy – Energy Efficient Habitat House
Learn about the Performance Review of a Habitat Dekalb home; the products and practices used, and performance testing results.

Monte Hewett – EarthCraft House
Come hear about EarthCraft House, Atlanta's Green Building Program.

Rob Hammon – Field-Verified Energy Codes
In a coordinated response to the energy crisis and blackouts in California in 2001, the California Energy Commission and California Building Industry Association developed and implemented the most stringent update in the history of the California Energy Efficiency Standards ("Title 24"). This update included integration of third-party field-verification and testing of efficiency measures. These two groups, who are typically adversarial, have been working together to develop and implement workable codes since the advent of the DOE-funded Builder Energy Code Training in 1996. They have continued to cooperate in development of new draft standards that are planned for adoption in 2005 that will increase stringency by even more than the 2001 Standards update. These new standards will incorporate additional third-party inspections and tests and will shift the basis of the standards from strictly energy to time-of-use to help reduce peak demand.

This presentation will focus on how California has implemented third-party field-verification in its energy efficiency standards and will describe lessons learned from this experience. Dr. Hammon will detail both the existing and proposed field-verification credits, including duct leakage, HVAC design, TXV, envelope tightness, and insulation installation quality. This presentation will include the infrastructure requirements for implementing third-party field-verification that in California is performed by certified home energy raters. Dr. Hammon, who helped represent the building industry during the last five energy standards updates, will also describe how both the State of California and California builders have benefited from these standards updates, helping to make these two normally adversarial groups work together to develop and implement the country's most stringent energy efficiency standards.

Muthusamy Swami – EnergyGauge
Dr. Swami will give an overview of the current status and recent changes in the Florida energy code for commercial buildings. He will discuss and demonstrate the associated software, EnergyGauge-FlaCom, developed at the Florida Solar Energy Center, through DOE and State funding, for purposes of code compliance and energy analysis. The discussion will also include current capabilities of EnergyGauge-FlaCom and plans for its future.

Heather Dillon – Online Permitting
Does your jurisdiction have a digital future? See a demonstration of the first generation in online permitting for energy codes, which will soon be available for REScheck Package Generator users. Join a discussion about the future of this tool and how it might be used in your area.

Ruth Taylor – Centralized Energy Codes Resources
Come see the latest resources available on the Building Energy Codes (BEC) Website (www.energycodes.gov) and plans for new resources in the near future. Whether you are interested in tools to help you better implement building energy codes or are looking for tools to help you comply with codes in your area, the BEC website has a wealth of information to help. Upcoming activities to centralize a variety of training resources, as presented in the web-based training seminar on Wednesday morning, will also be discussed.

Break10:00 AM – 10:15 AM

Sessions10:15 AM – 11:45 AM

(choose one)

Session 5A
The Latest and Greatest in Building Mechanical Technologies
This session focuses on the unseen systems in our homes and offices – the mechanical systems that provide our heating, cooling, humidification, dehumidification, and hot water. While not as visible to the naked eye as the building envelope or lighting, these systems are vital in the maintenance of our personal comfort. Come find out what new mechanical technologies are available and the implications of these new technologies for code enforcement and compliance.

Session Lead: Greg Andrews, U.S. Department of Energy, Atlanta Regional Office
Technical Lead: Mark Halverson, PNNL
Speaker: Laura Case, Emory University

Presentation Description:
Laura Case
Laura will discuss the enthalpy wheel installed in the Whitehead Research Building at Emory University, Atlanta's first LEED Silver Certified Building.

Session 5B
REScheck Hands-on Software Training
This session will give participants "hands-on" experience using the residential energy codes compliance software, REScheck. Instructors will lead the class through a case study to demonstrate a variety of software features including the take-off tool, AreaCalc. Personal laptops are helpful but not required for the class.

Session Leads: Ruth Taylor / Pam Cole / Heather Dillon, PNNL
Technical Leads: Ruth Taylor / Pam Cole / Heather Dillon, PNNL

Closing Plenary and Wrap-up11:45 AM – 12:15 PM

Jean Boulin, U.S. Department of Energy